

Amendment and Response

Applicant: Jerome D. Brown et al.

Serial No.: 10/672,166

Filed: September 26, 2003

Docket No.: 10387US01 (1201.180.101)

Title: TAPE REEL ASSEMBLY WITH RADIALY SYMMETRIC DEFORMING TAPE WINDING SURFACE**REMARKS**

The following remarks are made in response to the Office Action mailed February 8, 2005. In the Office Action, the Disclosure was objected to for including a typographical error. In addition, claims 5-6 and 14 were rejected under 35 U.S.C. §112, second paragraph, for not being in complete sentence form. Further, claims 1, 2, 5, 8-10, 12, 13, and 15-17 were rejected under 35 U.S.C. §102(e) as being anticipated by Hiraguchi et al., U.S. Pat. No. 6,736,345 ("Hiraguchi"). Claims 3, 4, 7, and 18 were rejected under 35 U.S.C. §102(e) as anticipated by Hiraguchi, or alternately, rejected under 35 U.S.C. §103(a) as obvious over Hiraguchi. Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hiraguchi. Claims 1, 2, 5-9, and 12-16 were rejected under 35 U.S.C. §102(a) as being anticipated by Zwettler et al., U.S. Pat. No. 6,474,582 ("Zwettler"). Claims 3, 4, and 18 were rejected under 35 U.S.C. §102(a) as anticipated by, or alternately, rejected under 35 U.S.C. §103(a) as obvious over Zwettler. Finally, claims 10, 11, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Zwettler in view of Hiraguchi.

With this Response, claims 1, 5-7, 12, 14, and 18 have been amended, and claims 19 and 20 are newly presented. Claims 1-20 remain pending in the application and are presented for consideration and allowance.

Objection to the Disclosure

The Disclosure was objected to as including a typographical error on page 10, line 27. With this Response, a rewritten paragraph is submitted to correct the typographical error. It is respectfully requested that the rejection to the Disclosure be withdrawn.

Claim Rejections under 35 U.S.C. §112

Claims 5-6, and 14 were rejected under 35 U.S.C. §112, second paragraph, for not being in complete sentence form. Claims 5-6 and 14 have been amended to cure this defect. It is respectfully requested that the rejections to claims 5-6 and 14 be withdrawn.

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Claim Rejections under 35 U.S.C. §§102 and 103

Claims 1, 2, 5, 8-10, 12, 13, and 15-17 were rejected under 35 U.S.C. §102(e) as being anticipated by Hiraguchi.

Hiraguchi teaches a tape cartridge 10 including various tape reel assemblies. In this regard, Hiraguchi teaches a reel 50 comprising a cylindrical reel hub 56, a reel gear 60, and a groove 64 formed between the reel hub 56 and the reel gear 60. In addition, Hiraguchi teaches at column 9, lines 58-64 that the reel hub 56 is provided with a small diameter portion 74 at a position a step lower than an end surface of the reel hub 56. The Examiner takes the position that a "web" extends from the small diameter portion 74 to the reel hub 56. *Office Action* at page 3, lines 2-3. With this understanding, and as best illustrated in FIG. 4, Hiraguchi teaches that the web is contiguous with a top of the reel hub 56 (i.e., the web is contiguous with a top end of annular arm/reel hub 56).

In contrast, amended independent claim 1 recites in part: "A tape reel assembly for a data storage tape cartridge, the cartridge configured to couple to a tape drive, the tape reel assembly comprising: a hub including an annular arm co-axially disposed exterior to and separated from the cylindrical core, the annular arm defining opposing ends and a tape winding surface bisected by a center line into a top half opposite the drive side and a bottom half adjacent the drive side; and a web extending from the top side of the core and connecting to the top half of the annular arm, and further wherein the web is not contiguous with the ends of the annular arm."

Amended independent claim 12 recites in part: "A data storage tape cartridge comprising: a hub having a cylindrical core defining a drive side and a top side; an annular arm co-axially disposed exterior to and separated from the cylindrical core, the annular arm defining a tape winding surface terminating at opposing ends of the annular arm and bisected by a center line into a top half opposite the drive side and a bottom half adjacent the drive side; a web extending from the top side of the core and connecting to the top half of the annular arm, the web not contiguous with either of the opposing ends."

Support for the language of amended claims 1 and 12 can be found throughout the Specification, for example, at page 8, lines 13-28, and FIGS. 3 and 5.

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It is respectfully submitted that Hiraguchi does not teach or suggest a web that is not contiguous with an end of the annular arm, as otherwise required by amended independent claims 1 and 12. To this end, it is respectfully submitted that independent claims 1 and 12, and claims depending therefrom, cannot be anticipated by Hiraguchi. With this in mind, it is respectfully requested that the rejections to claims 1, 2, 5, 8-10, 12, 13, and 15-17 under 35 U.S.C. §102(e) over Hiraguchi be withdrawn.

As a point of reference, claims 5 and 6 recite a further limitation to independent claim 1, and thus recite additional patentably distinct subject matter. Claim 5 recites: "The tape reel assembly of claim 1, wherein the web defines a web center, the web center connecting to the annular arm at a point from the center line not greater than one-half an axial length of the top half." Claim 6 recites: "The tape reel assembly of claim 1, wherein the web defines a web center, the web center connecting to the annular arm at a point from the center line not greater than one-fourth an axial length of the top half." It is respectfully submitted that Hiraguchi does not teach or suggest limitations of either dependent claim 5 or dependent claim 6.

It is respectfully submitted that a visual review of the spatial relationship of the various components illustrated in Hiraguchi (*See* FIG. 4) reveals that a center of the web connects to the reel hub 56 at a point from a center line bisecting a tape winding surface of reel hub 56 that is greater than one-half an axial length of the top half (and thus, also greater than one-fourth an axial length of the top half). Consequently, it is believed that both dependent claim 5 and dependent claim 6 recite additional patently distinct subject matter.

Claims 3, 4, 7, and 18 were rejected under 35 U.S.C. §102(e) as being anticipated by Hiraguchi, or alternately, rejected under 35 U.S.C. §103(a) as being obvious over Hiraguchi. With regard to claims 3, 4, and 7, it is respectfully submitted that Hiraguchi fails to teach or suggest limitations of amended independent claim 1, such that claims 3, 4, and 7 cannot be anticipated by, or rendered obvious over, Hiraguchi.

Independent claim 18 has been amended to recite in part: "A method of winding data storage tape onto a tape reel assembly comprising: providing a data storage tape cartridge having a housing enclosing the tape reel assembly, wherein the tape reel assembly includes a hub having: an annular arm co-axially disposed exterior to and separated from a cylindrical core, the

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annular arm defining a tape winding surface bisected by a center line into a top half terminating at a top end opposite a drive side and a bottom half adjacent the drive side; and a web extending from the top side of the core and connecting to the top half of the annular arm, wherein the web is characterized as being not contiguous with the top end of the annular arm."

As described above, it is respectfully submitted that Hiraguchi does not teach or suggest a web that is not contiguous with an end of an annular arm of a hub. Further, Hiraguchi does not teach or suggest that the described reel 50 exhibits symmetrical radial deformation under the high tape winding stress conditions of claim 18. To the contrary, the contiguous nature of the Hiraguchi "web" relative to the annular arm 56 top end will inherently result in highly non-symmetrical deformation of the tape winding surface, in contrast to the limitations of claim 18. It appears that Hiraguchi is either unconcerned with deformation of the tape winding surface or believes that deformation will not occur; however, because the "top" end of the Hiraguchi tape winding surface is fully supported by the "web" and the bottom "end" is not, when deformation occurs, it will not be symmetrical. For at least these reasons, amended independent claim 18 is not anticipated by, or rendered obvious over, Hiraguchi. It is respectfully requested that the rejections to claims 3, 4, 7, and 18 under 35 U.S.C. §102(e) and/or under 35 U.S.C. §103(a) over Hiraguchi be withdrawn.

Claims 1, 2, 5-9, and 12-16 were rejected under 35 U.S.C. §102(a) as being anticipated by Zwettler. However, it is respectfully submitted that Zwettler is not available as a 35 U.S.C. §102(a) reference.

Zwettler published on September 26, 2002, and Jerome D. brown is listed as an inventor in Zwettler. The pending Application was filed on September 26, 2003, and Jerome D. Brown is a co-inventor of the pending Application. In this regard, Jerome D. Brown respectfully submits that the subject matter of Zwettler relied upon by the Examiner stems from Mr. Brown's own work.

With the above in mind, a declaration under 37 C.F.R. §1.132 is included with this Response unequivocally stating that Applicant Brown conceived/invented the subject matter disclosed in Zwettler that was relied upon in the 35 U.S.C. §102(a) rejection of claims 1, 2, 5-9, and 12-16. See MPEP 715.01(b); MPEP 716.10; and MPEP 2132.01 (each relating to a 37

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C.F.R. §1.132 affidavit employed to remove a §102(a) rejection). Thus, Zwettler does not qualify as prior art under 35 U.S.C. §102(a). MPEP 2132.01.

Zwettler is not available as a 35 U.S.C. §102(a) reference such that the rejections to claims 1, 2, 5-9, and 12-16 must be withdrawn. Since Zwettler is not available as a §102(a) reference, it is respectfully submitted that the rejections to claims 3, 4, and 18 under 35 U.S.C. §102(a), or alternately, under 35 U.S.C. §103(a), must also be withdrawn.

Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hiraguchi. However, it is respectfully submitted that amended independent claims 1 is non-obvious under 35 U.S.C. §103, such that the claims depending from independent claims 1 must also therefore be non-obvious. MPEP 2143.03.

In addition, claims 10, 11, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Zwettler in view of Hiraguchi. It is respectfully submitted that Zwettler is not available as a reference, and Hiraguchi fails to teach or suggest a web that is not contiguous with an end of an annular arm of a hub, such that rejections to claims 10, 11, and 17 under 35 U.S.C. §103(a) must be withdrawn.

Claims 19 and 20 are newly presented to particularly point out and distinctly claim subject matter that is not taught or suggested by the cited references. In this regard, newly presented claim 19 recites: "The tape reel assembly of claim 1, wherein the web defines a web top and a web bottom, and further wherein the web top is aligned with the top side of the core." Newly presented claim 20 recites: "The tape reel assembly of claim 1, wherein an entirety of the web is spaced apart from the opposing ends of the annular arm." Support for the language in claims 19 and 20 can be found throughout the Specification, for example at page 8, lines 11-12, and in FIGS. 3 and 5. It is respectfully submitted that newly presented claims 19 and 20 recite additional patentably distinct subject matter that is not taught or suggested by the cited references.

CONCLUSION

In view of the above, Applicants respectfully submit that pending claims 1-20 are in form for allowance, and recite subject matter that is not taught or suggested by the cited references.

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Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-20 is respectfully requested.

Please charge any additional fees or credit any overpayment to Deposit Account No. 09-0069.


The Examiner is invited to telephone the Applicants' representative at the below-listed number to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Eric D. Levinson at Telephone No. (651) 704-3604, Facsimile No. (651) 704-5951. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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